The Pre-KinderGarden

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"The love of gardening is a seed that once sown never dies." ~ Gertrude
Jekyll

It's never too early to get kids excited about gardens. According to a recent research published in the journal Applied Environmental Education and



Communications, "...when young children are participating in gardening they are communicating their knowledge about the world to others, conveying (and learning to process and manage) emotions, and developing important skills (e.g., initiative, self-confidence, literacy, math, science skills) that will help them be more successful in school and better navigate the world."(1) We also know that children instilled with a love of gardening at an early age grow into adults with a passion for plants and respect for the environment,(2) and that experiences in green spaces are extremely helpful in easing the symptoms of Attention-Deficit Disorder.(3) On top of that, they provide opportunities for kids to sample fresh fruits and vegetables and learn about food origins. What great affirmation for youth garden programs!

We all know that a child's early years are a crucial time of mental, physical, social, and emotional development, and that educational experiences during these first years significantly influence the rest of their lives. Although children respond differently to various teaching techniques, hands-on projects like gardening that allow children to explore at their own pace and engage in experiential learning have a high rate of success. Why are kids' gardens so successful?

- children are active and engaged
- gardening builds on prior learning and experiences with their environment
- the garden provides opportunities for children to develop a relationship with nature
- gardening projects are flexible and can be as small as a container garden in a window or as large as a schoolyard habitat
- gardening lessons emphasize direct experience and sensory learning and provide opportunities to both ask and answer questions

Tips for the Pre-K Garden Experience

Start SMALL! It's okay to plan big, but start small. A large garden can exhaust both you and the kids. Let them get excited about the joy and fun of a bountiful, small garden, and then expand as your confidence and experience increases.

Involve the kids in all stages. Engage them in as many of the planning steps as is reasonable based in the age of the children, including design and choosing plant material. This help create a sense of ownership and enriches the learning experience.

Spend time preparing the soil. Ask any farmer or gardener — they'll tell you the most important step in the planting process is preparing the soil. Healthy, well-drained soil rich in organic matter produces healthy plants that are more resistant to pest and disease problems. You will recoup all the time and money spent preparing the soil through decrease in maintenance. If you are using containers, obtain high quality, well-drained potting mix (and make sure containers have drainage holes).

Prepare for the elements. Make sure each child is prepared with sunscreen, a hat, and plenty of water. You may wish to provide child-sized garden gloves for digging in soil.

Teach kids proper garden behavior. Before going to the garden, make sure each child knows how to care for and work with the necessary garden tools. Establish a few basic guidelines such as "No one is to eat anything out of the garden without permission." Take time to demonstrate all garden techniques before asking kids to get started.

Work in small groups and recruit additional adult garden helpers if needed. Kids want to dig, rake, water, and harvest. Working with kids in small groups of two or three helps you engage each child and make sure they are actively involved at all times.

Avoid garden clutter. Tools, empty pots, and piles of discarded plants are not only unsightly, they're a safety hazard. After each work day, put away tools and place weeds and spent plant matter in a compost bin or trash can. It helps to have your garden storage close by and accessible.

Use cultural and mechanical pest control. Although pesticides are safe when properly applied and all instructions are followed, cultural and mechanical pest control methods should be used in children's gardens. This reduces the amount of oversight and instruction needed for a safe gardening experience.

Obtain child-sized garden tools. Adult tools are too heavy and bulky for young children. Smaller gardening tools designed just for kids are available at many garden centers and through the Gardening with Kids Store. As long as the soil has been properly prepared, most garden work can be completed with a small trowel.

Plant for immediate *and* **delayed gratification.** Watching new plants sprout from seeds is like magic for young kids, but slow germination rates can try their patience, so plant both seeds and potted plants

Avoid poisonous plants. Although every child needs to learn that some plants are not good to eat or touch, it is best to avoid poisonous plants and those with irritating characteristics such as thorns. Online databases of poisonous plants are available at:

NC State University Poisonous Plants
Cornell University Poisonous Plants
Also, see our plant list for pre-K gardens.

Add whimsical elements to engage the imagination. Although the plants on their own will inspire creativity, adding in elements such as a seating area, bean tepee, sunflower house, wind chimes, bird feeder, stepping stones, and so on further stimulate wonder and creative garden play.

Let kids direct explorations. What captures your attention may not attract your students, so follow their lead. Help them investigate things that interest them, and share in their excitement.

Don't stress about the garden's appearance. In a child's garden, plants will get stepped on, leaves will be picked, and weeds will grow, but the kids will still think it is the most beautiful thing they have ever seen. Remember to look at the garden through a child's eyes.

Enjoy! Be a good model by exhibiting your pleasure in the garden – if you're having fun, chances are the kids will have fun, too!

Sample Lessons

Check out these garden- and nature-based lessons for young children:

<u>Learning with Leaves</u> shows how to use leaves as a tool for practicing basic math skills.

<u>Colors in the Garden</u> is a matching game that encourages kids to explore the diversity of nature's colors.

1. Miller, Dana L., Ph.D., 2007. The Seeds of Learning: Young Children Develop Important Skills Through Their Gardening Activities at a Midwestern Early Education Program. Applied Environmental Education and Communication. Order a copy here

2. Lohr, V.I. and C.H. Pearson-Mims. 2005. Children's active and passive interactions with plants influence their attitudes and actions toward trees and gardening as adults. HortTechnology. 15(3): 472-476. View abstract here

3. Taylor, A. F., Kuo, F. E., & Sullivan, W. C. 2001. Coping with ADD; The surprising connection to green play settings. Environment and Behavior. 33(1), 54-77. View abstract here